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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,366	10/03/2005	Faramarz Jadidi	GRP-0140	8303

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CANTOR COLBURN, LLP  
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EXAMINER
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SZMAL, BRIAN SCOTT

ART UNIT	PAPER NUMBER
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3736

NOTIFICATION DATE	DELIVERY MODE
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10/14/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/552,366	<b>Applicant(s)</b> JADIDI, FARAMARZ	
	<b>Examiner</b> Brian Szmaj	<b>Art Unit</b> 3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 52-68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 52-68 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 28, 2008 has been entered.

***Claim Objections***

2. Claim 52 is objected to because of the following informalities: In line 5, "activity," should read as "activity,". Appropriate correction is required.
3. Claim 54 is objected to because of the following informalities: In line 2, "apparatus(-)" should read as "apparatus". The use of ( ) does not cancel the "-" in the claim. In order to cancel "-" the use of double brackets [[ ]] should be used. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 52-67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 52, the last four lines renders the claim indefinite. It is unclear exactly what "...said apparatus is configured to provide said feedback signal in response to detecting presence of signals said at least one distinguishing criterion identified in the set-up mode in signals..." is supposed to claim.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 52-68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 52 and 68 both recite the identification of "distinguishing criterion" that differentiates the first reference signal from the second reference signal. However, the specification does not disclose the use of a "distinguishing criterion" that differentiates the two reference signals from one another.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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9. Claims 52-59, 62, 63, 65, 67 and 68 are rejected under 35 U.S.C. 102(b) as being anticipated by Ober (4,669,477).

Ober discloses a means for preventing bruxism and further discloses a means for providing signals indicative of muscle activity; a means for processing the signals in order to detect a particular activity; a means for providing a feedback signal; the device is operable in a setup mode and a use mode, the setup mode being distinct from the use mode; in the setup mode the device is user controllable to receive first reference input signals from the providing means which are indicative of other muscle activity and to receive second reference input signals indicative of the particular muscle activity; the device is configured in the setup mode to process the first reference input signals and the second reference input signals to identify therefrom at least one distinguishing criterion which differentiates the first reference input signals from the second reference input signals; in the use mode the device is configured to provide the feedback signal in response to detecting in the signals the at least one distinguishing criterion identified in the setup mode; the device is configured in the setup mode to process the first reference signals and the second reference signals to identify therefrom as the distinguishing criterion at least one frequency in the signals, the amplitude of the signals at which the frequency differentiates the first reference signals from the second reference signals, and wherein in the use mode, the device is configured to provide feedback in response to detecting at least a predetermined amplitude at the at least one frequency in the setup mode; in the setup mode the device is user controllable to receive the second reference input signals from the providing means which are

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indicative of an essentially maximal muscle activity; means for registering and storing the signals indicative of muscle activity during a time interval; the device is adaptable by having a means for adjusting the intensity of the feedback; the processing means comprises a means for pattern recognition; the providing means comprises one or more electrodes for sensing EMG signals; the providing means comprises other sensor means; the apparatus comprises means for storing data; a user module for wearing on the head; and a display means for displaying results. See Column 2, lines 30-68; Column 3, lines 1-29 and 60-68; and Column 4, lines 1-4.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ober (4,669,477) as applied to claim 52 above, and further in view of Junker et al (6,636,763 B1).

Ober, as discussed above, discloses a means for preventing bruxism but fail to disclose the use of a means of obtaining EEG signals.

Junker et al disclose a brain-body actuated system and further disclose the use of acquiring EEG signals. See Column 3, lines 25-33.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the means of Ober to include the use of EEG, since it is well known in the art that EEG signals can be used to indicate muscle movement.

12. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ober (4,669,477) and Junker et al (6,636,763 B1) as applied to claim 60 above, and further in view of Stice (4,993,423).

Ober and Junker et al, as discussed above, disclose a means of obtaining muscle activity signals but fail to disclose a means for testing the electrodes to determine if the electrodes are connected to the skin properly.

Stice discloses a means for differential lead impedance comparison and further discloses a means for testing the electrodes to determine if the electrodes are connected to the skin properly. See Column 2, lines 64-66.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ober and Junker et al to include the ability of determining if the electrodes are contacting the skin, as per the teachings of Stice, since it is well known in the art to utilize a means of determining the contact of the electrodes since it provides a means of accurately acquiring bioelectrical signals from the patient.

13. Claims 64 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ober (4,669,477) as applied to claim 52 above, and further in view of Sunouchi et al (5,368,043).

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Ober, as discussed above, disclose a means for preventing bruxism, but fail to disclose a computer and a means for transferring data thereto; and the apparatus comprises a slave module and a master module, the slave module being designed for wearing by a patient.

Sunouchi et al disclose a means for measuring muscle activity and further disclose a computer and a means for transferring data thereto; and the apparatus comprises a slave module and a master module, the slave module being designed for wearing by a patient. See Column 6, lines 65-68; and Column 9, lines 18-27.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the means of Ober to include the use of a computer, as per the teachings of Sunouchi et al, since it would provide an external processing means to process the data and control the feedback means.

### ***Response to Arguments***

14. Applicant's arguments, see filed August 28, 2008, with respect to the rejection of Lo et al have been fully considered and are persuasive. The rejection of Lo et al has been withdrawn.

15. Applicant's arguments filed August 28, 2008 have been fully considered but they are not persuasive.

The Applicants argue Ober fails to teach the current claims. In particular, Ober fails to teach a set-up mode that is different from the use mode, and the signals are not received separately in the set-up mode. The Examiner respectfully disagrees. Ober



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teaches the use of a device that detects the occurrence of bruxism and provides feedback to the user. The disclosure of adjusting the threshold in Column 3, lines 8-12, inherently discloses the use of a set-up mode because the monitoring inherently takes place when the user is sleeping. One of ordinary skill in the art would not adjust a threshold during use when the patient is sleeping, since bruxism is not a predictable event during sleep.

The Applicant further argues the assertion made by the Examiner in a previous Office Action with respect to the first and second reference input signals, wherein the second reference input signal constitutes the particular muscle activity and the first reference input signal constitutes signals below the threshold. The Applicant further argues the Examiner's assertion would not allow Ober to operate in the same manner as currently claimed, because Ober does not process above threshold signals and below threshold signals to identify a characteristic that distinguishes the signals from one another. The Examiner respectfully disagrees. Ober discloses the processing of the signals that are above and below the threshold, otherwise the device would not be capable of determining the feedback threshold. Furthermore, the distinguishing criterion that differentiates the first signal from the second signals would inherently be the identification of the signal that is the greatest in magnitude.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Szmaj whose telephone number is (571)272-4733. The examiner can normally be reached on Monday-Friday, with second Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian Szmal/  
Examiner, Art Unit 3736